

Notice of Allowability

Application No.

10/777,707

Examiner

Chun-Kuan (Mike) Lee

Applicant(s)

NISHIMIYA, RYOHEI

Art Unit

2181

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/12/2007.
2. ☒ The allowed claim(s) is/are claims 1 and 3-8 have been renumbered as claims 1-7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

CONTINUED EXAMINATION UNDER 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/12/2007 has been entered.

RESPONSE TO ARGUMENTS

2. Applicant's arguments, see pages 6-8, filed 03/12/2007, with respect to claims 1 and 3-5 have been fully considered and are persuasive. The rejection of claims 1 and 3-5 has been withdrawn.

I. INFORMATION CONCERNING OATH/DECLARATION

Oath/Declaration

3. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R. 1.63.

II. INFORMATION CONCERNING DRAWINGS

Drawings

4. The applicant's drawings submitted are acceptable for examination purposes.

III. EXAMINER'S AMENDMENTS

OPTIONS AVAILABLE TO THE APPLICANT

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by **37 CFR § 1.312**. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

CORRECTIONS MADE IN THE APPLICATION

6. The application has been amended as following:

IN THE CLAIMS:

Claims 1 and 3-8 have been renumbered as following:

Original claims numbering

New claim numbering

3-8

2-7

IV. DISTINGUISHING FEATURES RECITED IN THE CLAIMS

ALLOWABLE SUBJECT MATTER

7. Claims 1 and 3-8 have been renumbered as claims 1-7 are allowed.

The following is an **Examiner's Statement of Reasons for Allowance**, See **MPEP 1302.14**:

8. The primary reasons for allowance of claim 1 in the instant application is the combination with the inclusion in the claim that there are " ... in said computing, based on said computed timing, said connection timing is computed by computing a delay time "b" needed for said bus switch to connect each one of said plurality of device units on said data bus after each one of said plurality of device units is connected on said timing-signal bus." The prior art of record including the disclosure of Osaka et al. (US Patent 5,787,261) neither anticipates nor renders obvious the above recited combination. Because claims 3 (2) and 6 (5) depend directly on claim 1, these claims are considered allowable for at least the same reasons noted above.

9. The primary reasons for allowance of claim 4 (renumbered as 3) in the instant application is the combination with the inclusion in the claim that there are " ... wherein said bus-switch control part controls said bus switch so that each one of said plurality of device units is connected on said data bus after a delay time "b" of said bus switch from connection of each one of said plurality of device units with said timing-signal bus, and wherein, based on cycle "T" of said timing signal, skew "a" from said timing-signal supply source to said bus switch control part, the delay time "b" of said bus switch, signal propagation delay time "c" between said bus switch control part and said bus switch, operating delay time "d" of said bus switch, pulse width (time) "e" of noise caused when each one of said plurality

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of device units is connected on said data bus being active, propagation delay time "f" of said noise in each one of said plurality of device units and said data bus, skew "g" from said timing-signal supply source to one or more other of said plurality of device units or one or more other devices connected on said data bus, and setup time "S" in said bus system, the delay time "b" of said bus switch is computed as a value such that a timing margin $M = (T + g) - (a + b + c + d + e + f) - S$ from arrival of said noise at the other said plurality of device units or the one or more other devices to start of said setup time is 0 or greater." The prior art of record including the disclosure of Osaka et al. (US Patent 5,787,261) neither anticipates nor renders obvious the above recited combination. Because claim 7 (6) depends directly on claim 4, the claim is considered allowable for at least the same reasons noted above.

10. The primary reasons for allowance of claim 5 (renumbered as 4) in the instant application is the combination with the inclusion in the claim that there are "... wherein said bus-switch control part controls said bus switch so that said device unit is connected on said data bus after a delay time "b" of said bus switch from connection of said device unit with said timing-signal bus, and wherein, based on cycle "T" of said timing signal, skew "a" from said timing-signal supply source to said bus switch control part, the delay time "b" of said bus switch, signal propagation delay time "c" between said bus switch control part and said bus switch, operating delay time "d" of said bus switch, pulse width (time) "e" of

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noise caused when said device unit is connected on said data bus being active, propagation delay time "f" of said noise in said device unit and said data bus, skew "g" from said timing-signal supply source to one or more other device units other than said device unit or one or more other devices connected on said data bus, and setup time "S" in said bus system, the delay time "b" of said bus switch is computed as a value such that a timing margin $M \{= (T + g) - (a + b + c + d + e + f) - S\}$ from arrival of said noise at the one or more other device units or the one or more other devices to start of said setup time is 0 or greater." The prior art of record including the disclosures of Osaka et al. (US Patent 5,787,261) neither anticipates nor renders obvious the above recited combination. Because claim 8 (7) depends directly on claim 5, the claim is considered allowable for at least the same reasons noted above.

11. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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V. CLOSING COMMENTS

Conclusion

DIRECTION OF FUTURE CORRESPONDENCES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose telephone number is (571) 272-0671. The examiner can normally be reached on 8AM to 5PM.

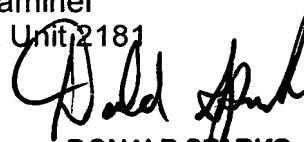
IMPORTANT NOTE

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 29, 2007

Chun-Kuan (Mike) Lee
Examiner
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DONALD SPARKS
SUPERVISORY PATENT EXAMINER